

Figure 1: The nucleic acid sequence of an acid hydrolase from the ciliate *Tetrahymena*.

-39

-1

cagcagtaataaaaaattctaaatatattgattgtagct

ATG CAA AAG ATA CTT TTA ATT ACT TTC CTT CTT GGA ATA GCT CTC GCT CAA ATT ACT CCT
60

GGC GTT GAC CCT ATT TCA GCT AAG GTT ATG CCT AAA CCT AAG AAT TAC ACT TAT GGA GAT
120

TTG AGC TTA CTT GTC ACT GAT CCT TGC GGA GTC TCT TAC AGA CCT TCT GTT GGG TCA GGA
180

AAA GTA CCC AAC CAT GTC TAT CAA ATT ATT GGA TTC TAC ACT TTG AAT ATT TTC AAT TCT
240

AAC GAA AAC TCT TGT GCT ATG TAA AGA GAA TTG TAT AAG AAT GAA ACA ACC ATT GAA AAG
300

ATG CGT AGA TTA CAA CAT TCC TAA AAT ATA GTC TTC GAT ATT TTT ATC TAA GAC GCT GCT
360

TTG GCC ACT GCA GAC ACA CTC GAA GAC GAA TAT TAT GAT TTA TAA ATT TAT AAT ACC ACA
420

TAT TGG AAA TTG ACT GCT AAC AAA TAT GTT GGT TTA CTC CGT GGT TTA GAA-ACT TAC TCT
480

CAA TTA TTC ACT TAA GAC GAA GAC ACT GAA GAT TGG TAT TTG AAT AAC ATC CCT ATT TCT
540

ATT CAA GAT TAA CCT GAC TAC ATC TAC AGA GGT CTT ATG ATA GAT TCA GCC AGA CAT TTC
600

TTA TCA GTT GAA ACT ATT TTA AAA ACT ATT GAT TCT ATG TTA TTC AAC AAG TTG AAT GTT
660

CTC CAT TGG CAC ATC ACT GAT ACT GAA TCC TTC CCC TTC CCT CTT AAA TCA TTC CCT AAT
720

ATT ACT AAA TAT GGA GCC TAC TCT AAG AAG AAA CAA TAC AGC TTC GAA GAC ATT TAA TAC
780

ATT GTA GAC TAA GCT CTC AAC AAG GGT ATT TAA GTT ATT CCT GAA GTC GAT TCT CCA GGA
840

CAC GCT TTT TCA TGG GCT AGA TCT CCT TAA TTC TCT AGT ATT GGT CTA TTA TGT GAT TAA
900

TAT AAT GGA TAG TTA GAC CCA ACA CTA AAT TTA ACT TAC ACT GCT GTT AAG GGT ATT ATG
960

GAA GAT ATG AAT ACT TAA TTC TAC ACT GCT AAG TAT GTT CAT TTT GGT GGT GAT GAA GTT

1020

GAA GAA TAA TGC TGG AAT AAA CGC CCT GAA ATT AAG GAA TTC ATG AAT TAA AAT AAC ATC
1080

TCT ACA TAT ACT GAT TTG TAG AAT TAT TAC AGA AAG AAC TAA GTT AAC ATT TGG AAA TCA
1140

ATG AAT GCT ACT AAG CCT GCT ATT TTC TGG GCA GAT TCA AAT ACT TTG AAA TAT GGT CCT
1200

GAT GAT ATT ATT CAA TGG TGG GGA TCT ACT CAT GAT TTT TCT TCA ATC AAA GAT CTT CCT
1260

AAC AAA ATA ATT TTA TCT TTC TAT GAT AAT ACT TAT TTG GAT GTT GGT GAG GGA AAT AGA
1320

TAT GGT GGA AGT TAT GGC AGC ATG TAT AAC TGG GAT GTC TTA AAC TCT TTC AAT CCT AGA
1380

GTT CCT GGA ATT AAG GGT GAA ATT CTT GGT GGC GAA ACA TGC TTA TGG AGT GAA ATG AAT
1440

GAT GAT TCT ACT TAA TTC TAA AGA CTT TGG ACA AGA AAT AGT GCA TTT GCT GAA AGA CTT
1500

TGG AAC ACT GAT GCT GCT AAC AAT GAA ACT TAC AAA ACT AGA GCT TTA GTT AGC AGA ATG
1560

GTC TTT ATG CAA CAC CGT TTA ACT GCT AGA GGA ATC CCT GCT TCT CCT GTA ACA GTT GGT
1620

ATT TGT GAA TAA AAC CTT TCT CTC TGC TAC AAT TGA
1656

ttctaaatataaarattaaataaatattttaagaaatattttaagaatatttttagtataaaaactgtattttaattga
1735

taaaaaaaaaataaatattattattaattgaatttttagctaaaaaaaaaaaaaaaaaaaaaaaaa
1798

Figure 2: The amino acid sequence of an acid hydrolase from the ciliate *Tetrahymena*.

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|---|-----|
| MQKILLITFL LGIALAQITP GVDPIAKVM PKPKNYTYGD LSLLVTDPCG | 50 |
| VSYPSPVSGG KVPNHVYQII GFYTLNIFNS NENSCAMQR EYKNETTIEK | 100 |
| MRRQLQHSQNI VFDIFIQDAA LATADTLEDE YYDLQIYNTT YWKLTANKYV | 150 |
| GLLRGLETYS QLFTQDEDTE DWYLNINIPIS IQDQPDYIYR GLMIDSARHF | 200 |
| LSVETILKTI DSMLFNKLV LHWHITDTES FPFPLKSFPN ITKYGAYSKK | 250 |
| KQYSFEDIQY IVDQALNKG I QVIPEVDSPG HAFSWARSPQ FSSIGLLCDQ | 300 |
| YNGQLDPTLN LTYTAVKGIM EDMNTQFYTA KYVHFGGDEV EEQCWNKRPE | 350 |
| IKEFMNQNNI STYTDLQNY RKNQVNIWKS INATKPAIFW ADSNTLKYGP | 400 |
| DDIIQWWGST HDFSSIKDLP NKIILSFYDN TYLDVGEGR YGGSYGSMYN | 450 |
| WDVLNSFNPRVPGIKGEILG ETCLWSEMN DDSTQFQRLW TRNSAFAERL | 500 |
| WNTDAANNET YKTRALVSRM VFMQHRLTAR GIPASPVTVG ICEQNLSLCY | 550 |
| N | 551 |